

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A system for cluster management that allows the configuration and monitoring of a cluster from a single-point, comprising:

- a network interface configured to communicate with nodes in the cluster;
- a memory configured to store information relating to cluster management;
- a configuration subsystem coupled to a remote management broker, wherein the remote management broker is configured to distribute information between the nodes in the cluster;
- a processor configured ~~to perform actions, including:~~ to:
 - ~~accessing~~ access the cluster from the single-point;
 - ~~obtaining~~ obtain information relating to devices within the cluster;
 - ~~presenting~~ present the information to a user; and
 - ~~determining~~ determine network management (NM) operations to perform to the cluster; ~~and~~
 - ~~performing~~ perform the determined NM operations; ~~and~~
 - determine if the NM operations on the cluster were applied correctly, and if not, roll back to a successful configuration.

2. (Currently Amended) The system of Claim 1, wherein the processor is configured to provide ~~presenting the information to the user, further comprises~~ a command line interface that is configured to access the cluster.

3. (Currently Amended) The system of Claim 1, wherein ~~presenting the information to the user, further comprises~~ the processor is configured to provide a graphical user interface that is configured to access the cluster.
4. (Original) The system of Claim 1, further comprising an aggregator configured to aggregate data relating to the devices within the cluster.
5. (Original) The system of Claim 1, wherein the RMB further comprises:
 - a secure transport configured to transport messages;
 - an RMB server coupled to the secure transport; and
 - an RMB client coupled to the secure transport.
6. (Original) The system of Claim 1, wherein the RMB is further configured to collect attributes from the Configuration Subsystem.
7. (Original) The system of Claim 1, wherein the messages include a header which is configured to authenticate the messages.
8. (Original) The system of Claim 7, wherein the header includes a message authentication code that acts as a shared secret within the cluster and a magic field that identifies the message as a remote management broker message.
9. (Currently Amended) A method for providing cluster management that allows the configuration and monitoring of a cluster from a single-point, comprising:
 - accessing the cluster from the single-point;
 - obtaining attributes relating to devices within the cluster;

receiving input from a user relating to the attributes;

determining network management (NM) operations to perform on the cluster based on the received input; ~~and~~

performing the determined NM operations on the cluster; and

determining if the NM operations on the cluster were applied correctly, and if not, rolling back to a successful configuration.

10. (Original) The method of Claim 9, further comprising applying a configuration lock that is intended to prevent other applications from performing NM operations on the devices within the cluster.

11. (Original) The method of Claim 9, wherein the single-point is selected from a command line interface and a graphical user interface.

12. (Original) The method of Claim 11, further comprising distributing information between the nodes in the cluster using a remote management broker.

13. (Original) The method of Claim 12, wherein performing the determined NM operations on the cluster further comprise distributing the NM operations to each of the devices.

14. (Currently Amended) The method of Claim 12, further comprising determining if the NM operations on the cluster were performed correctly, and if not, rolling back to a successful configuration.

15. (Original) The method of Claim 12, further comprising utilizing a header which is configured to authenticate the messages.

16. (Currently Amended) The method of Claim 9, further ~~comprising~~ comprising:
applying a configuration lock that is intended to prevent other applications from
performing NM operations on the devices within the cluster during a predetermined time; and
releasing the configuration lock after the NM operations are performed.

17. (Original) The method of Claim 9, further comprising aggregating data relating to the devices within the cluster on a single device within the cluster.

18. (Currently Amended) A computer readable storage medium for cluster management, comprising instructions for causing a computer to perform:

- obtaining attributes relating to devices within a cluster from a single-point;
- receiving input relating to the attributes;
- determining network management (NM) operations to perform on the cluster based on the received input;
- distributing the NM operations to the devices within the cluster; and
- applying the NM operations; and
- determining if the NM operations on the cluster were applied correctly, and if not, rolling back to a successful configuration.

19. (Currently Amended) The computer readable storage medium of Claim 18, further comprising instructions for causing a computer to perform: applying a configuration lock that is intended to prevent other applications from performing NM operations on the devices within the cluster during a predetermined time.

25. (Original) The apparatus of Claim 24, further comprising means for applying a configuration lock that is intended to prevent other applications from performing NM operations on the devices within the cluster during a predetermined time.

26. (Canceled)

27. (New) The system of Claim 8, wherein the message authentication code is calculated from contents of the message and from a shared secret value that is known to the devices within the cluster.

28. (New) The method of Claim 15, wherein the header comprises a message authentication code that is calculated from contents of the message and from a shared secret value that is known to the devices within the cluster.

29. (New) The computer readable storage medium of Claim 22, wherein the header comprises a message authentication code that is calculated from contents of the message and from a shared secret value that is known to the devices within the cluster.